19PW15 DBMS WS6

EDITOR USED : POPSQL

DBMS USED : MYSQL

USE 19pw;

CREATE TABLE 19PW15EMP

(

EMPNO INTEGER PRIMARY KEY,

EMPNAME VARCHAR(20),

SALARY NUMERIC(10,2),

E\_DEPTNAME VARCHAR(20) NULL,

BOSSNO INTEGER NULL,

FOREIGN KEY (BOSSNO) REFERENCES 19PW15EMP (EMPNO)

);

CREATE TABLE 19PW15DEPARTMENT

(

DEPTNAME VARCHAR(20) PRIMARY KEY,

DEPTFLOOR INT,

PHONE NUMERIC(10),

MGRID INT NOT NULL,

FOREIGN KEY (MGRID) REFERENCES 19PW15EMP (EMPNO)

);

CREATE TABLE 19PW15ITEM

(

ITEMNAME VARCHAR(20) PRIMARY KEY,

ITEMTYPE CHAR,

ITEMCOLOR VARCHAR(10)

);

CREATE TABLE 19PW15SALES

(

SALESNO INT PRIMARY KEY,

SALEQTY NUMERIC(5),

S\_ITEMNAME VARCHAR(20) NOT NULL,

S\_DEPTNAME VARCHAR(20) NOT NULL,

FOREIGN KEY (S\_ITEMNAME) REFERENCES 19PW15ITEM (ITEMNAME),

FOREIGN KEY (S\_DEPTNAME) REFERENCES 19PW15DEPARTMENT (DEPTNAME)

);

ALTER TABLE 19PW15EMP ADD CONSTRAINT E FOREIGN KEY (E\_DEPTNAME) REFERENCES 19PW15DEPARTMENT (DEPTNAME);

INSERT INTO 19PW15EMP

VALUES (1, 'Alice ', 75000, 'Management', NULL),

(2, 'Ned', 45000, 'Marketing', 1),

(3, 'Andrew', 25000, 'Marketing', 2),

(4, 'Clare', 22000, 'Marketing', 2),

(5, 'Todd', 38000, 'Accounting', 1),

(6, 'Nancy', 22000, 'Accounting', 5),

(7, 'Brier', 43000, 'Purchasing', 1),

(8, 'Sarah', 56000, 'Purchasing', 7),

(9, 'Sophile', 35000, 'Personnel', 1),

(10, 'Sanjay', 15000, 'Navigation', 3),

(11, 'Rita', 15000, 'Books', 4),

(12, 'Gigi', 16000, 'Clothes', 4),

(13, 'Maggie', 11000, 'Clothes', 4),

(14, 'Paul', 15000, 'Equipment', 3),

(15, 'James', 15000, 'Equipment', 3),

(16, 'Pat', 15000, 'Furniture', 3),

(17, 'Mark', 15000, 'Recreation', 3);

INSERT INTO 19PW15DEPARTMENT

VALUES ('Management', 5, 34, 1),

('Books', 1, 81, 4),

('Clothes', 2, 24, 4),

('Equipment', 3, 57, 3),

('Furniture', 4, 14, 3),

('Navigation', 1, 41, 3),

('Recreation', 2, 29, 4),

('Accounting', 5, 35, 5),

('Purchasing', 5, 36, 7),

('Personnel', 5, 37, 9),

('Marketing', 5, 38, 2);

ALTER TABLE 19PW15ITEM MODIFY COLUMN ITEMNAME VARCHAR(40);

ALTER TABLE 19PW15SALES MODIFY COLUMN S\_ITEMNAME VARCHAR(40);

INSERT INTO 19PW15ITEM

VALUES ('Pocket Knife-Nile', 'E', 'Brown'),

('Pocket Knife-Avon', 'E', 'Brown'),

('Compass', 'N', NULL),

('Geo positioning system', 'N', NULL),

('Elephant Polo stick', 'R', 'Bamboo'),

('Camel Saddle', 'R', 'Brown'),

('Sextant', 'N', NULL),

('Map Measure', 'N', NULL),

('Boots-snake proof', 'C', 'Green'),

('Pith Helmet', 'C', 'Khaki'),

('Hat-polar Explorer', 'C', 'White'),

('Exploring in 10 Easy Lessons', 'B', NULL),

('Hammock', 'F', 'Khaki'),

('How to win Foreign Friends', 'B', NULL),

('Map case', 'E', 'Brown'),

('Safari Chair', 'F', 'Khaki'),

('Safari cooking kit', 'F', 'Khaki'),

('Stetson', 'C', 'Black'),

('Tent - 2 person', 'F', 'Khaki'),

('Tent -8 person', 'F', 'Khaki');

INSERT INTO 19PW15SALES

VALUES (101, 2, 'Boots-snake proof', 'Clothes'),

(102, 1, 'Pith Helmet', 'Clothes'),

(103, 1, 'Sextant', 'Navigation'),

(104, 3, 'Hat-polar Explorer', 'Clothes'),

(105, 5, 'Pith Helmet', 'Equipment'),

(106, 2, 'Pocket Knife-Nile', 'Clothes'),

(107, 3, 'Pocket Knife-Nile', 'Recreation'),

(108, 1, 'Compass', 'Navigation'),

(109, 2, 'Geo positioning system', 'Navigation'),

(110, 5, 'Map Measure', 'Navigation'),

(111, 1, 'Geo positioning system', 'Books'),

(112, 1, 'Sextant', 'Books'),

(113, 3, 'Pocket Knife-Nile', 'Books'),

(114, 1, 'Pocket Knife-Nile', 'Navigation'),

(115, 1, 'Pocket Knife-Nile', 'Equipment'),

(116, 1, 'Sextant', 'Clothes'),

(117, 1, 'Sextant', 'Equipment'),

(118, 1, 'Sextant', 'Recreation'),

(119, 1, 'Sextant', 'Furniture'),

(120, 1, 'Pocket Knife-Nile', 'Furniture'),

(121, 1, 'Exploring in 10 easy lessons', 'Books'),

(122, 1, 'How to win foreign friends', 'Books'),

(123, 1, 'Compass', 'Books'),

(124, 1, 'Pith Helmet', 'Books'),

(125, 1, 'Elephant Polo stick', 'Recreation'),

(126, 1, 'Camel Saddle', 'Recreation');

SELECT COUNT(DEPTNAME) FROM 19PW15DEPARTMENT;

SELECT \* FROM 19PW15EMP WHERE EMPNO IN (SELECT BOSSNO FROM 19PW15EMP);

SELECT S\_ITEMNAME,SUM(SALEQTY) AS 'QTY' FROM 19PW15SALES GROUP BY S\_ITEMNAME;

SELECT ITEMNAME FROM 19PW15ITEM WHERE ITEMTYPE IN ('E','F');

SELECT ITEMNAME FROM 19PW15ITEM WHERE ITEMCOLOR IS NULL;

SELECT COUNT(\*) FROM 19PW15ITEM GROUP BY ITEMCOLOR ORDER BY COUNT(\*) DESC LIMIT 1;

SELECT ITEMNAME FROM 19PW15ITEM WHERE ITEMTYPE BETWEEN 'E' AND 'K' AND ITEMCOLOR IN ('Khaki','Brown');

SELECT ITEMNAME FROM 19PW15ITEM ITEMCOLOR = 'Brown';

SELECT \* FROM 19PW15ITEM WHERE ITEMTYPE ='R';

SELECT ITEMNAME FROM 19PW15ITEM WHERE ITEMCOLOR = 'Red';

SELECT ITEMNAME FROM 19PW15ITEM WHERE ITEMCOLOR = 'Red' AND ITEMTYPE = 'C';

SELECT ITEMNAME FROM 19PW15ITEM GROUP BY ITEMNAME HAVING COUNT(DISTINCT ITEMCOLOR) > 1;

SELECT \* FROM 19PW15ITEM WHERE SUBSTRING(ITEMNAME, 1, 1) IN ('S', 'R');

SELECT \* FROM 19PW15ITEM WHERE ITEMNAME LIKE '%Knife%';

SELECT \* FROM 19PW15ITEM WHERE SUBSTRING(ITEMNAME, 3, 1) = 't';

SELECT \* FROM 19PW15ITEM WHERE ITEMNAME IN (SELECT DISTINCT ITEMNAME FROM 18PW15SALES WHERE S\_DEPTNAME = 'Clothes') AND ITEMTYPE = 'C';

SELECT \* FROM 19PW15ITEM WHERE ITEMTYPE = 'C';

SELECT \* FROM ITEM WHERE ITEMNAME NOT IN (SELECT DISTINCT S\_ITEMNAME FROM 19PW15SALES WHERE S\_DEPTNAME = 'Clothes') AND ITEMTYPE = 'C';

SELECT \* FROM 19PW15ITEM WHERE ITEMCOLOR = 'Brown';

SELECT S\_ITEMNAME FROM 19PW15SALES WHERE SALEQTY > 1;

SELECT S\_ITEMNAME FROM 19PW15SALES WHERE S\_DEPTNAME = 'Furniture';

SELECT \* FROM 19PW15ITEM WHERE ITEMNAME IN (SELECT ITEMNAME FROM 19PW15SALES WHERE SALESNO BETWEEN 107 AND 112 OR SALESNO BETWEEN 121 AND 126);

SELECT S\_DEPTNAME, SUM(SALEQTY) FROM 19PW15SALES GROUP BY S\_DEPTNAME;

SELECT S.S\_ITEMNAME FROM 19PW15SALES S INNER JOIN 19PW15ITEM I on S.ITEMNAME = I.ITEMNAME WHERE I.ITEMCOLOR = 'Green';

SELECT DISTINCT I.\* FROM 19PW15ITEM I INNER JOIN 19PW15SALES S on I.ITEMNAME = S.S\_ITEMNAME WHERE S.S\_DEPTNAME != 'Books';

SELECT DISTINCT S\_DEPTNAME FROM 19PW15SALES WHERE S\_DEPTNAME NOT IN (SELECT S\_DEPTNAME FROM 19PW15SALES WHERE S\_ITEMNAME = 'Geo positioning system');

SELECT S\_DEPTNAME FROM 19PW15SALES WHERE S\_DEPTNAME IN (SELECT DISTINCT S\_DEPTNAME FROM 19PW15SALES WHERE S\_ITEMNAME = 'Compass') GROUP BY S\_DEPTNAME HAVING COUNT(DISTINCT S\_ITEMNAME) > 2;

SELECT S\_DEPTNAME FROM 19PW15SALES GROUP BY S\_DEPTNAME HAVING COUNT(S\_ITEMNAME) >= 4;

SELECT E.\* FROM 19PW15EMP E INNER JOIN 19PW15EMP B ON E.BOSSNO = B.EMPNO WHERE E.E\_DEPTNAME != B.E\_DEPTNAME;

SELECT E.\* FROM 19PW15EMP E INNER JOIN 19PW15EMP B ON E.BOSSNO = B.EMPNO WHERE E.SALARY < B.SALARY / 2;

SELECT I.\* FROM 19PW15ITEM I INNER JOIN 19PW15SALES S ON I.ITEMNAME = S.S\_ITEMNAME INNER JOIN 19PW15DEPARTMENT D on S.I\_DEPTNAME = D.E\_DEPTNAME WHERE I.ITEMCOLOR = 'Green' AND DEPTFLOOR = 2;

SELECT S\_ITEMNAME FROM 19PW15SALES GROUP BY S\_ITEMNAME HAVING COUNT(S\_DEPTNAME) >= 2;

SELECT \* FROM 19PW15SALES WHERE S\_DEPTNAME NOT IN ('Clothes', 'Books');

SELECT \* FROM 19PW15EMP WHERE E\_DEPTNAME = 'Marketing' ORDER BY SALARY DESC LIMIT 1;

SELECT EMPNAME FROM 19PW15EMP WHERE SALARY < (SELECT AVG(SALARY) FROM 19PW15EMP) \* 0.9;

SELECT EMPNAME FROM 19PW15EMP WHERE SALARY > (SELECT MIN(SALARY) FROM 19PW15EMP WHERE EMMPNO IN (SELECT DISTINCT BOSSNO FROM 19PW15EMP));

SELECT DISTINCT S\_DEPTNAME FROM 19PW15SALES WHERE S\_DEPTNAME NOT IN (SELECT DISTINCT S\_DEPTNAME FROM 19PW15SALES WHERE S\_ITEMNAME IN ('Compass', 'Geo positioning system'));

SELECT EMPNAME FROM 19PW15EMP WHERE SALARY < 10000;

SELECT COUNT(\*) FROM 19PW15ITEM I INNER JOIN 19PW15SALES S on I.ITEMNAME = S.S\_ITEMNAME INNER JOIN 19PW15DEPARTMENT D on S.DEPTNAME = D.S\_DEPTNAME WHERE D.DEPTFLOOR = 3 AND I.ITEMTYPE = 'E';

SELECT I.ITEMNAME, COUNT(\*) FROM 19PW15SALES S INNER JOIN 19PW15ITEM I on S.S\_ITEMNAME = I.ITEMNAME GROUP BY I.itemname;

SELECT ITEMNAME FROM 19PW15ITEM WHERE ITEMCOLOR = 'Green' AND ITEMNAME IN (SELECT ITEMNAME FROM 19PW15SALES GROUP BY ITEMNAME HAVING COUNT(DISTINCT DEPTNAME) = (SELECT DISTINCT COUNT(Deptname) FROM SALES));

SELECT S\_DEPTNAME FROM 19PW15SALES GROUP BY S\_DEPTNAME HAVING COUNT(\*) <= 1;

SELECT S\_ITEMNAME FROM 19PW15SALES GROUP BY ITEMNAME HAVING COUNT(DISTINCT DEPTNAME) = (SELECT COUNT(DISTINCT DEPTNAME) FROM 19PW15SALES);

SELECT DISTINCT S\_DEPTNAME FROM 19PW15SALES WHERE S\_DEPTNAME NOT IN (SELECT S\_DEPTNAME FROM 19PW15SALES WHERE S\_ITEMNAME = 'Compass');

SELECT D.DEPARTMENT, D.DEPTFLOOR, AVG(E.SALARY) FROM 19PW15DEPARTMENT D INNER JOIN 19PW15EMP E on D.MGRID = E.EMPNO GROUP BY D.DEPTNAME;

SELECT B.EMPNAME FROM EMP E INNER JOIN 19PW15EMP B ON E.BOSSNO = B.EMPNO WHERE E.EMPNAME = 'Nancy';

SELECT E\_DEPTNAME FROM 19PW15EMP GROUP BY E\_DEPTNAME HAVING COUNT(\*) > 1 AND E\_DEPTNAME IN (SELECT DEPTNAME FROM 19PW15DEPARTMENT WHERE DEPTFLOOR = 2);

SELECT DEPTNAME FROM 19PW15DEPARTMENT WHERE DEPTFLOOR IN (2, 5);

SELECT EMPNAME FROM 19PW15EMP WHERE SALARY > (SELECT AVG(SALARY) FROM 19PW15EMP WHERE DEPTNAME = 'Books');

SELECT EMPNAME FROM 19PW15EMP WHERE EMPNO IN (SELECT BOSSNO FROM 19PW15EMP GROUP BY BOSSNO HAVING COUNT(\*) = 1);

SELECT E.EMPNAME FROM 19PW15EMP E INNER JOIN 19PW15EMP B ON E.BOSSNO = B.EMPNO WHERE B.EMPNAME = 'Todd';

SELECT DISTINCT DEPTNAME FROM 19PW15SALES WHERE DEPTNAME NOT IN (SELECT DEPTNAME FROM 19PW15SALES S INNER JOIN 19PW15ITEM I on S.ITEMNAME = I.ITEMNAME WHERE I.ITEMCOLOR = 'Green' GROUP BY (S.Deptname) HAVING COUNT(\*) = (SELECT COUNT(\*) FROM 19PW15ITEM WHERE ITEMCOLOR = 'Green'));

SELECT B.EMPNAME FROM 19PW15EMP E INNER JOIN 19PW15EMP B ON E.BOSSNO = B.EMPNO WHERE E.EMPNAME = 'Sophile';

SELECT E.EMPNAME FROM EMP E INNER JOIN EMP B ON E.BOSSNO = B.EMPNO WHERE E.SALARY < B.SALARY / 2;

SELECT B.EMPNAME AS MANAGER, E.EMPNAME AS EMPLOYEE FROM 19PW15EMP E INNER JOIN 19PW15EMP B ON E.BOSSNO = B.EMPNO;

SELECT EMPNAME FROM 19PW15EMP ORDER BY SALARY LIMIT 1;

SELECT EMPNAME FROM 19PW15EMP WHERE SALARY < (SELECT MIN(SALARY) FROM 19PW15EMP WHERE DEPTNAME = 'Marketing');

SELECT DISTINCT S.ITEMNAME FROM 19PW15SALES S INNER JOIN ITEM I on S.ITEMNAME = I.ITEMNAME WHERE I.ITEMCOLOR = 'Brown';

SELECT DISTINCT S.ITEMNAME FROM 19PW15SALES S INNER JOIN 19PW15ITEM I on S.ITEMNAME = I.ITEMNAME WHERE I.ITEMCOLOR = 'Brown' AND S.DEPTNAME = 'Books';

SELECT DEPTNAME FROM 19PW15EMP GROUP BY DEPTNAME ORDER BY AVG(SALARY) DESC LIMIT 1;

SELECT DEPTNAME FROM 19PW15SALES S INNER JOIN 19PW15ITEM I ON S.ITEMNA = I.ITEMNAME WHERE I.ITEMCOLOR = 'Brown' GROUP BY (S.DEPTNAME) HAVING COUNT(\*) = (SELECT COUNT(\*) FROM 19PW15ITEM WHERE ITEMCOLOR = 'Brown');

SELECT DEPTNAME, AVG(SALARY) FROM 19PW15EMP WHERE DEPTNAME IN (SELECT DISTINCT DEPTNAME FROM 19PW15SALES WHERE ITEMNAME = 'Sextant') GROUP BY DEPTNAME;

SELECT ITEMNAME FROM 19PW15SALE GROUP BY ITEMNAME HAVING COUNT(DISTINCT DEPTNAME) >= 2;

SELECT B.DEPTNAME FROM 19PW15EMP E INNER JOIN 19PW15EMP B WHERE E.BOSSNO = B.EMPNO GROUP BY B.EMPNO HAVING AVG(E.SALARY) > 25000;

SELECT DEPTNAME FROM 19PW15SALES WHERE ITEMNAME = 'Stetson' AND DEPTNAME IN (SELECT DEPTNAME FROM 19PW15EMP GROUP BY DEPTNAME HAVING SUM(SALARY) > 25000);

SELECT S.ITEMNAME, S.DEPTNAME, D.DEPTFLOOR, E.EMPNAME FROM 19PW15SALES S INNER JOIN 19PW15DEPARTMENT D on S.DEPTNAME = D.DEPTNAME INNER JOIN 19PW15EMP E ON D.MGRID = E.EMPNO;

SELECT DISTINCT S.ITEMNAME FROM 19PW15SALES S INNER JOIN 19WP15DEPARTMENT D on S.DEPTNAME = D.DEPTNAME WHERE DEPTFLOOR != 2;